slowness of its action constituted its safety, and the inconvenience arising in this way was very small, as the patient experienced no alteration in his health or habits during its progress.

The cauterization may be effected by two different means; namely, either by caustics or the actual cautery. M. Cloquet states that in the first of those cases where he attempted this method, he used, as the cauterizing agent, the acid nitrate of mercury, and succeeded completely. However, he prefers the actual cautery, its action being deeper, almost instantaneous and consequently less painful, while it occasions a more firm cicatrix, and one which becomes more rapidly organized. The three other patients were treated in this manner, and the results obtained confirmed his opinion on this point. An almost insurmountable obstacle to its employment might be, however, occasionally met with in the terror of the patient. But, fortunately, science provides us with a means of obviating this inconvenience; as a platina wire introduced within the mouth, before the electric circuit is completed, cannot excite the patient's alarm, and as it can afterwards by this means be brought to a white heat, and be kept incandescent for any length of time, the surgeon is enabled to act with all the calmness and precision desirable.—*Monthly Journal of Medicine*, May, 1855, from *Gazette Médicale*, March 3.

52. *On the Employment of Tracheotomy in Croup.*—M. Trousseau loses no opportunity of bringing before the Profession the claims of this operation, which he believes have not met with due acknowledgment, especially in Britain. He states that his employment of it has been more successful than ever during the last year, for of nine operations he has performed, recovery has been the result in seven. During the last four years he has operated 24 times in private practice with 14 recoveries; and at the Hôpital des Enfants Malades tracheotomy was performed 216 times, with 47 recoveries, almost a fourth. This is a considerable result when we consider the social condition of the children brought to the hospital, the injudicious treatment they had usually already been submitted to, and the disastrous condition in which they are placed after the operation, surrounded by various foci of contagion, so that when all seems going on well, scarlatina, variola, or pertussis may induce the most dangerous complications. M. Trousseau feels convinced that in civil practice success will attend full one-half of the operations, provided they be undertaken under conditions rendering success possible. This qualification is important, for if diphtheritic inflammation has deeply contaminated the system, so that the skin, and especially the nasal fossæ, exhibit the special phlegmasia, if the frequency of pulse, delirium, and prostration indicate a complete poisoning of the system—the peril being rather in this general condition than in the local lesion—the operation should never be attempted, as it is then always fatal. But if the local lesion constitutes the principal danger, at whatever degree the asphyxia may have arrived, the child having but a few minutes to live, tracheotomy will succeed almost as well as if performed three or four hours sooner.

M. Trousseau has now performed the operation above 200 times, and he particularly insists upon its being executed with due deliberation, without any attempt at display. The double canula must always be employed, and as large a one as can conveniently enter the trachea. The operation completed, the most urgent thing to attend to is the feeding of the child, for, under the influence of abstinence the absorption of external miasmata, and of the vicious secretions fabricated within the body is favoured, and the power of resistance is enfeebled. Without gorging the child with food its appetite when present must be satisfied, while when there is none it must still be forced to eat, and by feigning intimidation M. Trousseau has got children to eat who otherwise would have been lost. Milk, eggs, chocolate, and broths form the most suitable diet.

The much greater success which has attended his operations in late compared with former years, M. Trousseau attributes in part to practitioners not previously exhausting the patient's strength by bleeding and blistering so much as formerly. After the operation, all medicinal treatment must be dis-

continued, as interfering with due alimentation. If blisters have been already applied, they must be healed up by means of rhatany or Goulard ointment, pencilling the surface with nitrate of silver if diphtheritic exudations be present.

Apologizing for the apparent minutiæ to which he calls attention, he observes, that the longer he lives the more he is convinced of the importance of such details in therapeutics. Between the canula and the skin a small strip of oiled silk or caoutchouc should be interposed, and the relatives should be taught to remove and cleanse the inner canula every two or three hours. The neck should be surrounded by a knitted comforter or a large piece of muslin, and the infant should breathe into this, so that the inspired air may become impregnated with some of the warm vapour furnished by expiration. This precept is very important; for by its aid we prevent the drying of the cavity of the canula and the trachea, and thus avoid irritating the mucous membrane and the formation of coriaceous crusts, which, becoming detached, may cause dangerous suffocative paroxysms, by obstructing the tube. Before the author and M. P. Guersant adopted this plan, they lost several patients by catarrhal pneumonia, which is now of much rarer occurrence. Another practice, in the neglect of which a cure is rare, consists in thoroughly pencilling the entire surface of the wound daily with nitrate of silver. We in this way prevent the dangerous formation of thick, fetid, false membranes on its surface. This specific inflammation may also become propagated to the cellular tissue and develop phlegmonous erysipelas, leading to local gangrene, or at least violent symptomatic fever and a general infection of the economy which rarely spares the patient. By the fifth day, the surface of the wound has become so modified that these accidents are no longer to be feared.

Finally, the removal of the canula and definitive closure of the wound require attention. The canula is rarely removable before the sixth day or later than the tenth, and in some cases the larynx remains quite closed for fifteen, twenty, or even forty days. At the end of the first week we should take it out with great care, so as to avoid making the child cry. The infant having become accustomed to breathe by the artificial mode, may be seized with a paroxysm of fear and difficult respiration on the first removal. There may be some obstruction of the larynx, by slightly adherent false membranes, mucus, or tumefaction; and the laryngeal muscles may have somewhat lost the power of harmoniously contracting. The difficulty of breathing usually soon disappears if the child can be kept quiet, and, according to the degree in which the laryngeal passage seems re-established, the wound may be strapped up with court-plaster, or left for a day longer covered with ointment or lint. If the air does not pass at all, the canula must be replaced for a while longer. When respiration is re-established, the opening in the trachea is usually closed in four or five days, and the external wound heals soon after.

Sometimes after the operation there is a difficulty in deglutition, consisting in the passage of fluids through the glottis, and its penetration into the trachea and bronchi, creating great irritation. Besides this irritating effect, the child acquires an invincible disgust for its food, and will die rather than take nourishment. The best means of treatment is to avoid liquid diet, giving solid or semi-solid substances, allaying thirst by a little cold water, given just before or long after the repast, so as to avoid exciting vomiting. The inconvenience usually commences three or four days after the operation, and rarely continues longer than from the tenth to the twelfth day. It would seem that the larynx, which thus permits liquid aliments to pass, should allow the passage of the air also; but it is not so, for if we remove the canula, the passage will be found insufficient. M. Archambault, who has paid much attention to this complication, believes that it results from the child having, by the use of the canula, lost the habit of moving the muscles which close the larynx, in harmony with those which propel the food; and he has found it advantageous to temporarily close the canula with the finger during the attempt at deglutition, the child then being obliged to bring the laryngeal muscles into action, and the harmony becoming re-established. This stratagem, however, sometimes completely fails.—*Med. Times and Gaz.*, April 7, 1855, from *Archives Gén. de Med.*, March.